

GENERAL POST OFFICE

# Handbook for Radio Operators

Rg.67. 1961 Edition

## APPENDIX 9

### **Long Range Area Communications Scheme**

*LONDON*

HER MAJESTY'S STATIONERY OFFICE

1965

## Note

The following amendments should be made to copies held of *Handbook for Radio Operators, Rg.61. 1961 Edition*\*

Page 28. Section 34.

S. Delete reference "(see footnote)".

F. Delete reference "(<sup>see</sup> footnote)".

Delete footnote; "The sender . . . Government radiotelegrams".

Page 92. Section 110—Last paragraph— Delete all after "are" and insert: "given in Appendix 9".

Page 209. 'Radio telegrams in secret language . . .'

Delete "57" insert "37".

\* Obtainable from H.M.S.O. or any bookseller. Price 6s. 0d. net. S.O. Code No. 88-5405.

## APPENDIX 9

### Long Range Area Communications Scheme

1. The scheme provides for a long range ship/shore radiotelegraph radiocommunication service in which Commonwealth countries, the Irish Republic and the Republic of South Africa take part. Foreign ships are not normally permitted to participate, but foreign ships on British Government charter may do so provided that prior application by the appropriate Government Department has been approved by the Radio Services Department, Wireless Telegraph Section, Union House, St. Martins-le-Grand, London, E.C.I.

For the purpose of the scheme the world is divided into the areas shown in the map on page 15.

Each area is served by an area transmitting station and one or more area receiving stations as shown in the following table:

Area	Transmitting Station	Receiving Station	Supplementary Receiving Station
1. (1A, 1B, 1C) 2. (and 2A) 3.	Portishead Capetown Mauritius	Portishead Capetown Mauritius and Bombay	Malta  Vizagapatam See note below
5. (and 5A)	Wellington	Irirangi and Awarua	
6. 7. 8.	Vancouver Sydney Singapore	Vancouver Sydney Singapore and Hong Kong	Darwin
9.	Halifax (Camperdown)	Halifax	

Note: CEYLON. Welisara Naval Radio (4SI) is an accounting station within the scheme. Radiotelegrams to and from Ceylon are relayed without extra charge by other stations in the organisation: such traffic is routed via 4SI although the station normally communicates with naval ships only.

Traffic for a ship in any area is normally transmitted by the appropriate area transmitting station but special arrangements may be made for traffic to be transmitted by a designated area transmitting station.

Area stations are linked by a naval point to point radio network (see map on page 16) and traffic is relayed from one to another without extra charge. Thus a radio telegram to a ship in an area other than Area 1, routed via Portishead Radio, will be forwarded to the area transmitting station to which the ship is listening. Similarly a ship may send traffic to a receiving station in any area, either direct or via another area receiving station.

Navigational warnings and weather messages are transmitted at specified times (see 9).

### TRAFFIC TO SHIPS

2. **Frequencies.** The frequencies available at each Area transmitting station are shown in the Frequency List below:

**FREQUENCY LIST**

Area (1)	Call Sign (2)	Frequency (kc/s) (3)	Call Sign (4)	Frequency (kc/s) (5)	Call Sign (6)	Frequency (kc/s) (7)
1 (Portishead)	GKU*	129.95	GKN	8,546	GKT6	16,954.4
	GRL	1,612	GKL	8,558	GKB6	16,973.6
	GKC2	4,256	GKB4	8,569.6	GKJ	17,098.4
	GKA2	4,267.9	GKA4	8,581.6	GKS	17,112.8
	GKH	4,274	GKC4	8,606	GKA6	17,136.8
	GKM	4,286	GKD	12,714	GKC6	17,151.2
	GKK	4,316	GKU5	12,790	GKT7	22,407
	GKW	6,369	GKF	12,822	GKA7	22,431
	GKV	6,379.5	GKG	12,835.5	GKI	22,449
	GKA3	6,397	GKA5	12,858	GKO	22,467
	GKC3	6,428.5	GKC5	12,871.5	GKB7	22,503
	GKU3	6,470.8	GKB5	13,006.5	GKU7	22,527
	GKB3	6,477.5	GKT5	13,020	GKC7	22,545

ROLL CALLS and Warnings 0000-0800 G.M.T.: any three of the following:  
GKM 4,286, GKW 6,369, GKN 8,546, GKF 12,822, GKJ 17,098.4 kc/s

2 (Capetown)	ZSL	119.15	ZSL3	6,467	ZSL5	12,772.5
	ZSL2	3,741.5	ZSL4	8,502	ZSL6 ZSL7	17,228 22,455
3 (Mauritius)	GZC	123	GZC3	6,519.5	GZC5	12,988.5
	GZC2	4,295	GZC4	8,726	GZC6 GZC7	16,978.4 22,587
5 (Wellington)	ZLW4	8,702	ZLW5	13,056	ZLW6	17,170.4
7 (Sydney)	VIX	44	VIX3	6,428.5	VIX5	12,907.5
	VIX2	4,286	VIX4	8,478	VIX6 VIX7	17,256.8 22,485
8 (Singapore)	GYS	112.85	GYS3	6,481	GYS5	12,781.5
	GYS2	4,334	GYS4	8,630	GYS6 GYS7	17,266.4 22,521
6 (Vancouver)	CKN	110.75	CKN	6,445.25	CKN	12,921
	CKN	3,287	CKN	8,614	CKN	17,228
9 (Halifax)	CFH	115.3	CFH	6,449.5	CFH	12,984
	CFH	4,356.5	CFH	8,662	CFH	17,218.4

•GKU 129.95 in abeyance until ordered or GBMS Organization is operative.

**3. Transmission of Traffic.** Each area station transmits traffic for ships within its own area at:

G.M.T.	G.M.T.
0000–0200	1200–1400
0400–0600	1600–1800
0800–1000	2000–2200

However, Portishead transmits roll calls only at 0000 and 0400 GMT: traffic for ships included in these roll calls may be obtained on request. (Special arrangements for Area 1 see page<sup>^</sup>).AoC

For each transmission a complement of frequencies capable of providing adequate coverage for the area concerned will be used by each transmitting station. The actual frequencies will depend on the time of day and season of the year. For example: at 0000 G.M.T. for area 3, Mauritius might use 4, 8 and 12 Mc/s with 123.0 kc/s, whereas at 1200 G.M.T. the station might use 8, 12 and 22 Mc/s with 123.0 kc/s.

Seasonal changes of frequencies are made four times a year and complements for the ensuing period for each routine transmission are published in advance under "Schedule A" in Admiralty Notices to Mariners. Normally the schedule covers the periods November-February, March-April, May-August and September-October. A typical example is shown on pagesjl 8-9119.

Ships must listen at the scheduled times to the Area transmitting station appropriate to their geographical position or to the station to which they have indicated they are listening, and acknowledge receipt of traffic as described in paragraph 5. Exceptionally, special arrangements may be made to handle heavy traffic to individual ships, or to meet particular needs; for example, those of cruising ships, special voyages, etc.

For five minutes immediately preceding every transmission period each Area transmitting station will transmit a call band or other signals on all the frequencies which will be used during the period. These transmissions will enable ships to select the frequency best suited for reception at the time.

At the beginning of every transmission period each Area transmitting station will transmit a roll call of traffic on hand in the following order:

- (1) GACQ or GBMS
- (2) MBMS.
- (3) Notes for all ships.
- (4) Collective call signs.
- (5) Ships' names where call signs are not known.
- (6) Other ships in alphabetical order of call signs.

The roll call will be followed immediately by a transmission of traffic in the same order.

Radiotelegrams for each ship will be numbered in a separate series commencing with No. 1 at 0001 G.M.T. daily. Those which have already been included in a previous day's transmissions will retain the original serial number with the date added, e.g. 2/23 denotes serial No. 2 of the 23rd.

Examples of transmissions:

Roll call by Mauritius having no items under (1) and (3) CQ CQ CQ de GZC GZC3 GZC4 GZC5 (repeated three times) QTC MBMS MBMS GCTP GCTP (collective call sign) Nonsuch Nonsuch (call sign not known) GCDP GCDP GCTM GCTM GLVR GLVR2 (figure indicates the number of messages on hand) GMNR GMNR and so on until the end of the roll call.

Radiotelegram, originally addressed Portishead but routed to and transmitted by Mauritius:—

CT GCDP London 1 10 15 1140 via GKL =

Smith Purser Empirestar Mauritiusnavalradio =

What stores do you require = Chandlers AR

("via GKL" would be omitted if the message had originally been addressed to Mauritius).

Radiotelegrams will be transmitted once in the first transmission period after receipt at the Area transmitting station and will be repeated in each of the five succeeding transmission periods, unless acknowledged by the ship in the meantime. If an acknowledgment is not received from the ship after the sixth transmission the sender will be notified that the message has been transmitted but not acknowledged. The notification will be made after the intervals prescribed by international regulations.

Area 1—Portisheadradio

Area 1 is divided into three sub-areas to which separate frequencies have been assigned. At the commencement of each scheduled transmission period these frequencies will be associated in a simultaneous transmission of a common roll call in which ships will be notified of the sub-area transmission in which their traffic will be included. Roll calls will be in alphabetical order of call signs to each sub-area as shown in the following example:

CQ CQ CQ de GKU GKA2 GKB3 GKC2 GKC3 (repeated three times) =

QTC GBMS GBMS (or MBMS MBMS or GACQ GACQ) =

AREA 1A de GKU GKA2 (repeated twice) QTC GBXM GBXM

GCTW GCTW etc.=

AREA IB de GKB3 GKB3 QTC GCTM GCTM GTLM GTLM etc. =  
 AREA 1C de GKC2 GKC3 (repeated twice) QTC GCTL GCTL  
 GLVR GLYR2 etc.

Traffic will then be broadcast to individual sub-areas or combinations of sub-areas depending on the volume of traffic on hand. When the volume of traffic is excessive, additional broadcasts may be arranged but in every case a suitable announcement will be made. The sub-area transmissions will be combined for the simultaneous transmission to the whole of Area 1 of Navigational and Weather Broadcasts, GBMS, MBMS, GACQ and other collective call sign messages.

TIMETABLE

Time (G.M.T.)	Type of Broadcast
0000	All Ships—Roll call only
0130-0200	All Ships—Warnings, etc.
0400	All Ships—Roll call only
0530-0600	All Ships—Warnings, etc.
0800-0930	All Ships—Roll call and Traffic
0930-1000	All Ships—Warnings, etc. (including Atlantic Weather Bulletin)
1015-1115	H24 Ships—Roll call and Traffic
1130	All Ships—Atlantic Weather Bulletin
1200-1330	Ships other than H24—Roll call and Traffic
1330-1400	All Ships—Warnings, etc.
1400-1530	H24 Ships—Roll call and Traffic
1600-1730	Ships other than H24—Roll call and Traffic
1730-1800	All Ships—Warnings, etc.
1800-1930	H24 Ships—Roll call and Traffic
2000-2130	Ships other than H24—Roll call and Traffic
2130-2200	All Ships—Warnings, etc. (including Atlantic Weather Bulletin)
2230-2330	H24 Ships—Roll call and Traffic

Notes: Traffic for H24 ships transmitted at 0800 is not repeated at 1015 G.M.T.

- 4. Watchkeeping on Area stations by ships.** A ship's Radio Officer, having ascertained from the roll call that there is no traffic for his station, or having completed reception of any traffic, may revert to other working until the beginning of the last half hour of each transmission period, when navigational warnings and weather messages will be broadcast. Ships which listen to Portishead's four additional scheduled transmissions, and ships for which special arrangements have been made, must also keep watch at the last half hour of the scheduled two-hour periods for navigational warnings and weather messages.

Radio Officers are reminded of the necessity for ensuring continuous safety watch on 500 kc/s, e.g., by loudspeaker on a second channel receiver.

- 5. Acknowledgments of Traffic.** To avoid unnecessary transmissions it is most important that ships should acknowledge traffic as soon as possible after receipt. Acknowledgments may be sent while transmissions are in progress, and should be in the form of a service message addressed to the call sign of the transmitter from which the traffic was received. Ships may send acknowledgments on H/F through any Area receiving station; those not fitted for H/F working should send them via a British ship so equipped. Ships may also, if convenient, send acknowledgments via any 500 kc/s coast station in the United Kingdom.

Examples of acknowledgments of messages numbered 1 and 2 of the 23rd received from Sydney.

- (a) Acknowledgment sent to Sydney direct.

A VIX3 de GCDP Empirestar 1 23 = R 1/23 R 2/23 AR.

- (b) Acknowledgment via another ship.

A VIX3 de GCDP Empirestar 1 23 QSP via . . . (call-sign of relaying ship) = R 1/23 R 2/23 AR.

- (c) Acknowledgment via another Area station.

A VIX3 de GCDP Empirestar 1 23 QSP via . . . (call sign of the station to which the acknowledgment is transmitted) = R 1/23 R 2/23 AR.

- 6. TRs.** In order that traffic may be routed to the appropriate Area Station it is essential that ships engaged on international voyages should furnish their positions and Area watchkeeping arrangements in the form of TRs:

- (a) when entering or leaving port, including intermediate ports, and  
(b) when changing Areas.

It is important that 24 hours notice should be given whenever a ship intends to change, or cease watch on Area stations; failure to provide this notice may cause delay to traffic. It is desirable but not essential for a ship to listen to the Area station normally appropriate to the ship's position but ships should ensure that all Area stations concerned are fully aware of their intentions. In particular, ships entering port should endeavour to indicate to which Area station they will listen on leaving port as well as their intentions whilst in port.

TRs may be routed via any Area receiving station, or any



500 kc/s U.K. or Commonwealth coast station willing to relay without charge, to the terminal Area transmitting station. Ships not equipped for H/F transmission should relay TRs through British ships so equipped.

The address of a TR should consist of:

- (1) The call sign of the Area station on which watch is currently being maintained.
- (2) The call sign of the other station concerned where a change of Area station is being notified.
- (3) The call sign of Portisheadradio except in cases where this already appears at (1) or (2).
- (4) DE
- (5) The call sign of the ship.

A TR must indicate:

- (1) The name of the ship.
- (2) The approximate position by latitude and longitude in four (or five) figures, unless the ship is entering or leaving port.
- (3) The next port of call.
- (4) The circumstances in which the TR is being sent:
  - (i) ship leaving port;
  - (ii) ship changing watch from one Area station to another;
  - (iii) ship entering port and either—
    - (a) closing watch; or
    - (b) maintaining watch while in port (the expected sailing date should be given when known).
- (5) The area number of the transmitting station on which watch is commencing, ceasing or being maintained, according to (4) above;
- (6) the date and time at which watchkeeping changes will be effected, if this differs from the date/time of origin of the TR.
- (7) The date and time of origin of the TR.

Examples:

- (a) Standard TR.

TR GKL de GCDP = Empirestar QTO Curacao Liverpool QSX  
Area 1C=051218.

The above example indicates that "Empire Star" is leaving Curacao, bound Liverpool and listening Area 1C broadcasts.  
Time 1218 G.M.T. on the 5th.

- (b) TR relayed through another ship. Preamble should read:  
TR GKL de GCDP Empirestar QSP via (call sign of relaying ship).
- (c) Ship station about to enter port and cease watch for the appropriate Area station while in port, and advising expected date of sailing:  
TR GKL de GCDP Empirestar QTP Marseilles closing Area 1A expect sail 10th=051218.
- (d) Ship station able to maintain watch for the appropriate Area station while in port:  
TR GKL de GCDP Empirestar QTP Gibraltar but QSX Area 1A 1200 daily=051218.
- (e) Ship station about to change watch from one Area station to another:  
TR ZSL GZC GKL de GCDP Empirestar 1512S 5036E Colombo QSX Area 2 but from 061200 QSX Area 3 = 051218.

Owners messages, however, will be transmitted by Portishead-radio even when notification has been received that ship is in dock and has ceased watch.

7. **Ships nearing port.** The long-distance service operates separately from the short range coast station service. Ships, when nearing port, should establish contact with the coast stations operating in the 500 kc/s band and listen to their traffic lists. Whenever possible watch should also be kept on the transmissions from Area stations.

## 8. Official Broadcasts to Merchant Ships

GACQ	Collective call sign denoting a Naval message intended for all British Merchant Ships.	
GBMS and MERCAST	Full details are published in Admiralty Notices to Mariners Numbers 3, 3A and 3B of each year	
MBMS	Broadcasts of official messages relating to the long--distance communications scheme given in this Notice will be made from time to time under the call signs:	
	Merchant ships in all Areas	MBMS
	Merchant ships in Area 1 (1 A, IB and 1C)	MBMS1
	Merchant ships in Area 2 and 2A	MBMS2
	Merchant ships in Area 3	MBMS3
	Merchant ships in Area 5 and 5A	MBMS5

Merchant ships in Area 6	MBMS6
Merchant ships in Area 7	MBMS7
Merchant ships in Area 8	MBMS8
Merchant ships in Area 9	MBMS9

Messages addressed to MBMS or MBMS1 etc. will be included in traffic transmissions during single operator watchkeeping periods once a day for seven days and repeated once on each of the following three Sundays. Messages addressed to MBMS, i.e. those transmitted in all Areas, will be numbered consecutively in a yearly series, e.g. 1/1962. Those not transmitted in all Areas will not normally be numbered.

- 9. Navigational Warnings and Weather Messages.** Navigational warnings and weather messages will be broadcast by Area transmitting stations from the beginning of the last half-hour of the scheduled two-hour periods. If none is on hand, Area stations will notify ships at this time. Additionally, Portishead broadcasts Atlantic weather bulletins at 0930, 1130 and 2130 G.M.T.

### TRAFFIC FROM SHIPS

- 10. Traffic for countries which do not participate in the scheme.** Traffic for countries operating long-distance ship-shore radiocommunications services other than the scheme described in this Appendix should normally be sent direct to the long-distance stations of those countries, in accordance with the arrangements notified by the administrations concerned. Alternatively, traffic may be sent to the Area receiving station nearest to the country of destination; it will be subject to the normal telegraph charges onward from that station.

- 11. Traffic for countries participating in the Area Scheme.**

**IN ORDER TO MINIMISE DELAY, SHIPS' RADIO OFFICERS SHOULD, WHENEVER POSSIBLE, SEND THEIR TRAFFIC TO THE AREA STATION IN OR ADJACENT TO THE COUNTRY OF DESTINATION.**

If the station called does not answer the first call, the ship should call a second time. These calls should be made in accordance with Radio Regulations 1077-1080. If the second call is not answered other area receiving stations, including Supplementary

receiving stations, may answer and offer to accept traffic. In accepting or

declining such offers account should be taken of the likely transit time over the point-to-point radio relay path; this, of course, depends to some extent on prevailing radio propagation conditions. It may often be advantageous to hold traffic for a brief period in order to establish communication with the station first called. In no case should a Supplementary receiving station be called direct.

Schedule B (page 20) shows the hours of watchkeeping and appropriate call signs and answering frequencies at each of the Area receiving stations. Amendments to this schedule are published in Admiralty Notices to Mariners.

Traffic sent to coast stations operating in the 500 kc/s band will not be relayed over the network associated with the long-distance scheme. United Kingdom coast stations will, however, accept messages addressed to Portishead Radio.

12. **Selection of calling frequencies.** Before calling, a Radio Officer should select the band with the most favourable propagation characteristics for effecting reliable communication with the required station by reference to frequency guides or by listening for the wanted coast station on the frequencies in use; the frequency band in which the strongest signals are received is the one likely to be most effective.
13. **Use of frequencies.** Calling frequencies must be used only for establishing communications. TRs, acknowledgments and traffic must be passed on working frequencies. When calling a station, a ship should indicate the working frequency which it proposes to use. The abbreviation, QSS, followed by the last three whole numbers of the frequency should be used, e.g. QSS406 for 8406 kc/s, QSS682 for 12,682.5 kc/s, etc.

The attention of Radio Officers is drawn to the necessity to use only Class A1 emissions on H/F. (Radio Regulations, Geneva, 1959, Article 32 1145 refers).

14. **Form of Transmission.** Radiotelegrams from ship to shore should be transmitted in the form prescribed in Section 103 of this Handbook.

**Messages sent to Area receiving station for onward transmission.**

Messages transmitted on H/F to an Area receiving station other than the one in or nearest to the country of destination, must be sent in the following form:

Prefix (if any)—name of ship of origin—number of radio-telegram—number of words—date and time of handing in—Area

receiving station of destination—QSP via (receiving station through which message is actually transmitted)—service instructions—break sign—address—break sign—text of message—break sign—signature—finish sign.

(In Messages intended for delivery in Canada, the Area receiving station should always be shown as CFH/CKN.)

Example: (The ship in this case is assumed to be in the Pacific Ocean, and has a radiotelegram for an addressee in England, but is unable to contact Portisheadradio. The Area receiving station at Sydney has offered to take the message).

CT Empire Star \*15 7 21 2205 GKL QSP via VIS =

Brown 25 Newstreet Birmingham =

Arrive twentieth =

John AR

\*The local check number in the case of QSP messages must be in the series with the receiving station to which they are actually transmitted and not in the series with the Area receiving station of final destination. In the example, the figure 15 indicates that the message is the fifteenth sent that day from "Empire Star" to Sydneyradio. If the message had been transmitted from the ship direct to Portisheadradio, it would have borne the appropriate number in the daily series between the ship and Portisheadradio, and the words "GKL QSP via VIS" would not appear in the preamble.

**NOTE: It is important that the details of routing as shown in the example should be transmitted in all cases. Failure to do this may cause traffic to be forwarded over the cable system from the station accepting the traffic, in which case normal cable charges will apply.**

- 15. Radiotelegrams from one ship to another via an Area Station.** If the position of the ship of destination is known, the radiotelegram should be addressed to the appropriate Area Station.

If the appropriate transmitting station for the ship of destination is not known, the initial call should be made to the receiving station of the Area in which the ship of origin is sailing but the radiotelegram must be addressed to the Area station which answers and accepts the message.

Only one coast station charge is applied to the messages. It accrues to the station to which the message is addressed.

Examples:

- (a) Ship to ship message when the Area station for the ship of destination is known.

CT Aquitania 1 12 23 1000 GKL QSP via GXO =

Smith Empirestar Portisheadradio, etc.

- (b) Ship to ship message when the Area station for the ship of destination is NOT known and the message is addressed and transmitted to Mauritius Naval Radio. CT Aquitania 1 12 23 1000 = Smith Empirestar Mauritius Naval Radio, etc.

NOTE: Attention is especially directed to the inclusion of QSP in the preamble of example (a) and its omission from example (b).

The inclusion of QSP indicates to all stations handling the message that the coast station charge accrues to the terminal Area station.

The absence of QSP from the preamble indicates that the coast station charge accrues to the Area station which actually receives the message from the ship.

Radiotelegrams from merchant ships to H.M. Ships (excluding shore establishments) may be accepted under the same conditions. They should be addressed to Admiraltyradio.

Example: Commander Smith HMS Nonsuch Admiraltyradio.

Normally there is no "ship station" charge for stations on board H.M. Ships.

**10. Ship Letter Telegrams (SLTs).** SLTs are only accepted by Area stations for addresses in the countries listed below:

Country of destination	Paid service indicators admitted
Australia	= RP =
Canada	= P A V = *
Hong Kong	= RP = , = GP =
New Zealand	= RP =
Singapore and Malaya	= RP = , = PR = , = GP = , = GPR =
Union of South Africa	No paid service indicators admitted
United Kingdom and Irish Republic	= RP =

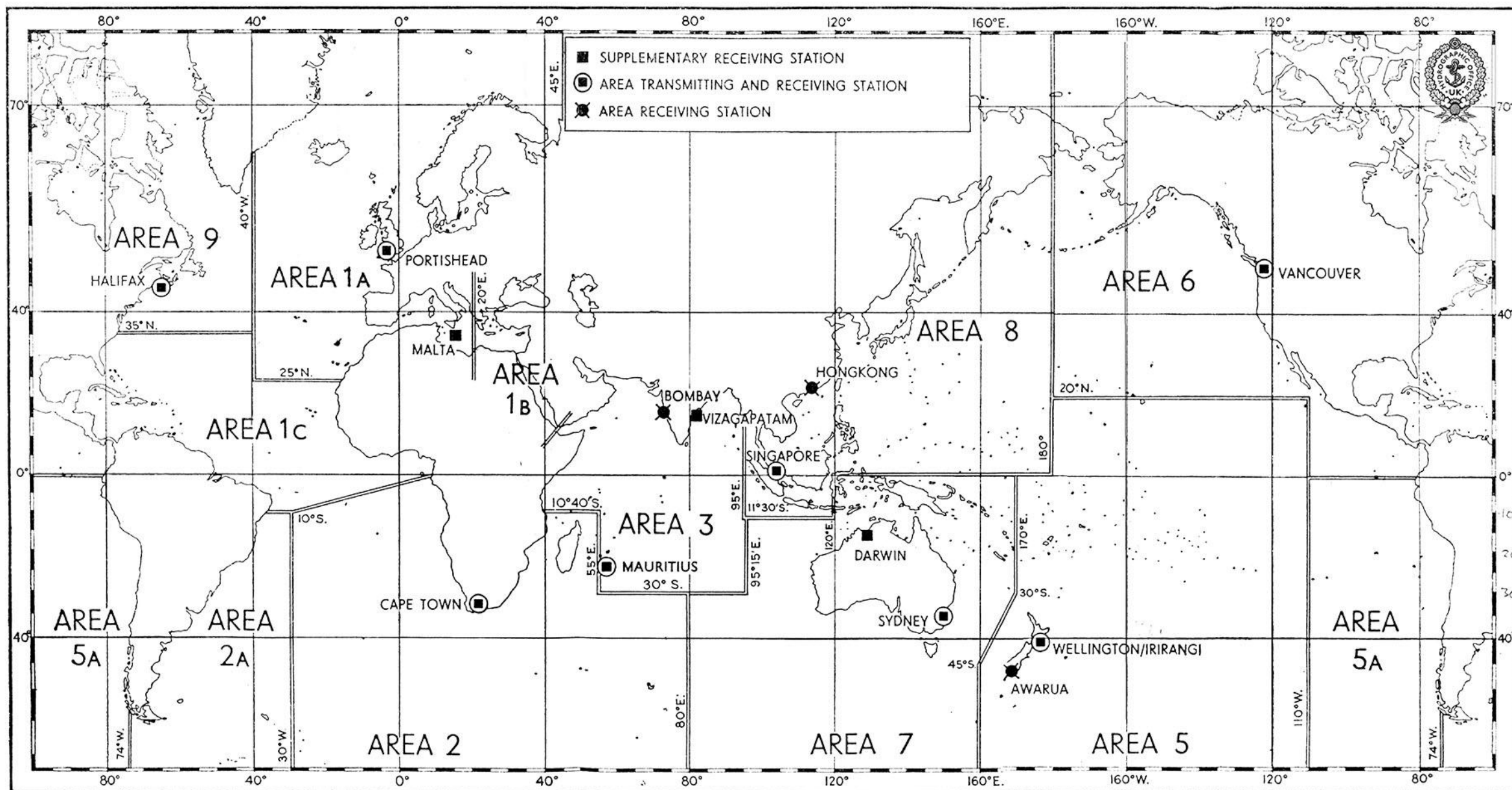
Ships having 16 or 24 hours of service should, as far as possible, avoid transmitting SLTs during single operator periods. \*Halifax and Vancouver will forward SLTs for Canadian destination by Air Mail without additional charge provided that the paid indicator = PAV = is inserted before the address of the message.

**Charges for Radiotelegrams**

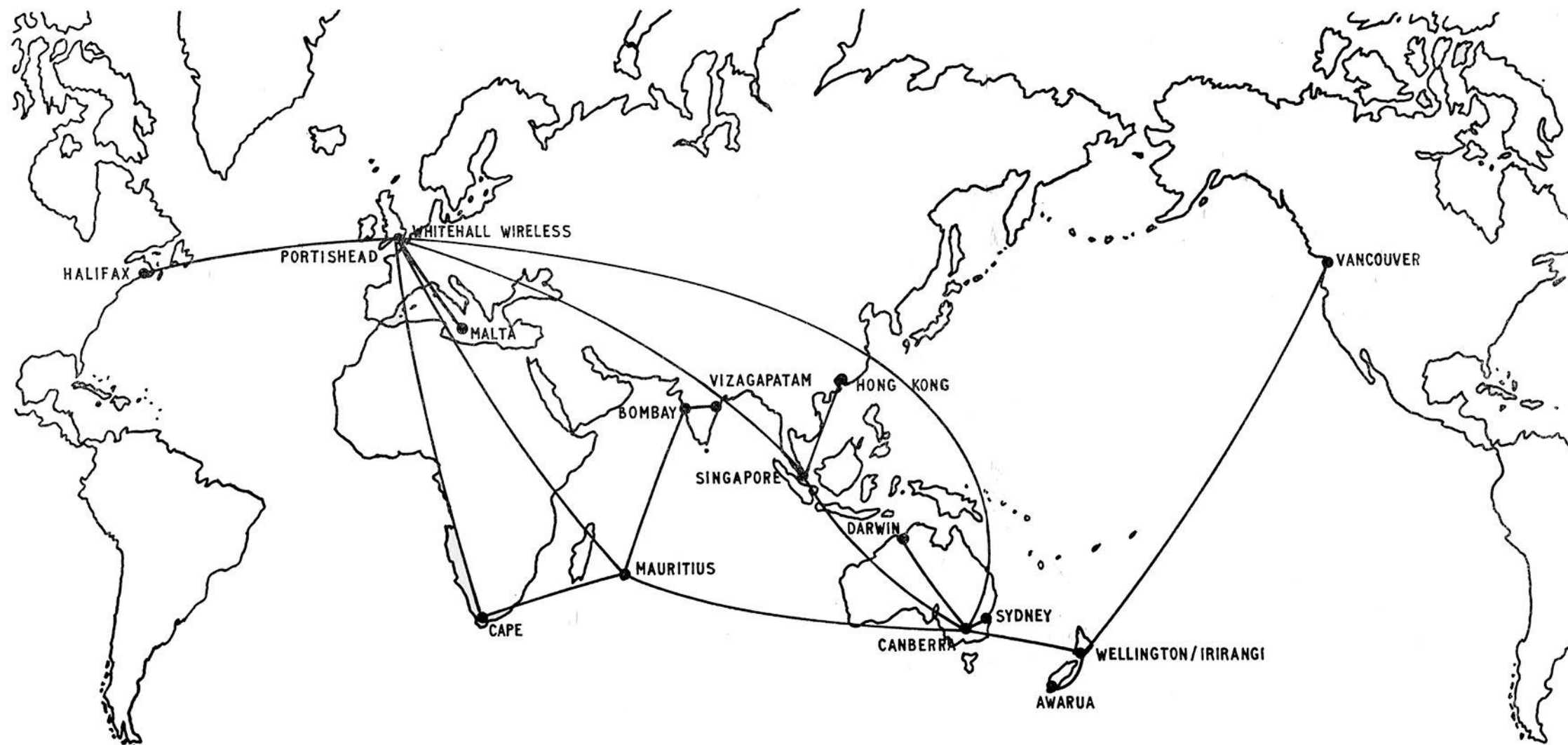
- (a) The total charge for a radiotelegram from ship to shore,

# LONG-RANGE SHIP-SHORE RADIOCOMMUNICATIONS

## MAP OF THE WORLD SHEWING AREAS, AREA STATIONS AND SUPPLEMENTARY RECEIVING STATIONS



## FIXED SERVICE NAVAL RADIO NETWORK LINKING AREA SCHEME STATIONS





transmitted on H/F, whether sent direct to the Area receiving station situated in or nearest to the country of destination, or sent through an Area or supplementary receiving station, for relay without extra charge over the point-to-point wireless network to the terminal Area receiving station, comprises:

- (i) The "ship station" charge, which accrues to the ship;
- (ii) The "coast station" charge, which accrues to the terminal Area receiving station (i.e. Portisheadradio in the example given in paragraph 15(a).
- (iii) The onward telegraph charge to the office of destination from the terminal Area receiving station.

No charge is made for relaying a radiotelegram from any Area or supplementary receiving station to the terminal Area receiving station over the point-to-point wireless network linking those stations. This applies to all classes of traffic, including Ship Letter Telegram (SLTs).

- (b) Messages from ship to shore sent to coast stations operating in the 500 kc/s band will be subject to the normal onward telegraph charges from the coast station to the office of destination.

## **18. Interruption of Services**

In the event of the services of an Area station being interrupted without notification (e.g. by cyclone damage) for more than one routine broadcast period, ships in the area affected should select the most appropriate alternative Area station on which watch will be maintained and should advise that station and Portishead Radio by TR as soon as practicable so that their traffic can be routed accordingly.

## SCHEDULE A {Example only see (3) }

## TRANSMISSION SCHEDULES, 1st NOVEMBER 1963—29th FEBRUARY 1964

## Area 1. (Portishead). Timetable.

Area 1 is divided into three sub-areas to which separate frequencies have been assigned.

(See table of call signs and frequencies which may be used).

Time (G.M.T.) (1)	Type of Broadcast (2)	Sub-Area 1A			Sub-Area IB	Sub-Area 1C	
		Call Sign (3)	Call Sign (4)*	Call Sign (5)	Call Sign (6)	Call Sign (7)	Call Sign (8)
0000	All Ships—Roll Call 1 . . . . .	GRL	GKU	Between 0000 and 0800 G.M.T., Areas 1A, IB and 1C are combined. Schedule B indicates which three H/F bands are in use; corresponding transmitting frequencies will be three of the following:—GKM, GKW, GKN, GKF, GKJ.			
0130-0200	All Ships—Warnings . . . . .	GRL	GKU				
0400	All Ships—Roll Call . . . . .	GRL	GKU				
0530-0600	All Ships—Warnings . . . . .	GRL	GKU				
0800-0930	All Ships—Roll Call and Traffic . . . .	GRL	GKU	GKA2	GKB5	GKC3	GKC5
0930-1000	All Ships—Warnings and Atlantic Weather Bulletin	GRL	GKU	GKA2	GKB5	GKC3	GKC5
1015-1115	H24 Ships—Roll Call and Traffic	GRL	GKU	GKA3	GKB5	GKC4	GKC5
1130	All Ships—Atlantic Weather Bulletin	GRL	GKU	GKA3	GKB5	GKC4	GKC6
1200-1330	Ships other than H24—Roll Call and Traffic	GRL	GKU	GKA3	GKB5	GKC4	GKC6
1330-1400	All Ships—Warnings	GRL	GKU	GKA3	GKB5	GKC4	GKC6
1400-1530	H24 Ships—Roll Call and Traffic	GRL	GKU	GKA3	GKB5	GKC4	GKC6
1600-1730	Ships other than H24—Roll Call and Traffic	GRL	GKU	GKA2	GKB3	GKC5	GKC6
1730-1800	All Ships—Warnings	GRL	GKU	GKA2	GKB3	GKC5	GKC6
1800-1930	H24 Ships—Roll Call and Traffic	GRL	GKU	GKA2	GKB3	GKC4	GKC6
2000-2130	Ships other than H24—Roll Call and Traffic	GRL	GKU	GKA2	GKB3	GKC4	GKC5

Traffic for ships included in the roll calls at 0000 and 0400 G.M.T. is transmitted when communication is established. Traffic for H24 ships transmitted at 0800 is not repeated at 1015 G.M.T. ♦GKU 129.95 kcs in abeyance until ordered or GBMS Organisation is operative.

\*GKU 129.95 kcs in abeyance until ordered or GBMS Organisation is operative.

**SCHEDULE A—continued Example (see (3) )****TRANSMISSION SCHEDULES,  
NOVEMBER 1963—FEBRUARY 1964**

Area (1)	Line (2)	Time G.M.T. (3)	Call Signs of transmitters used in bands indicated						
			L/F (4)	4 Mc/s (5)	6 Mc/s (6)	8 Mc/s (7)	12 Mc/s (8)	16 Mc/s (9)	22 Mc/s (10)
2 (Capetown)	1	0000-0200	ZSL	ZSL2	ZSL3	ZSL4			
	2	0400-0600	ZSL	ZSL2		ZSL4	ZSL5		
	3	0800-1000	ZSL	ZSL2			ZSL5	ZSL6	
	4	1200-1400	ZSL		ZSL3		ZSL5	ZSL6	
	5	1600-1800	ZSL	ZSL2			ZSL5	ZSL6	
	6	2000-2200	ZSL	ZSL2	ZSL3	ZSL4			
3 (Mauritius)	1	0000-0200	GZC	GZC2	GZC3	GZC4	GZC5		
	2	0400-0600	GZC			GZC4	GZC5	GZC6	GZC7
	3	0800-1000	GZC				GZC5	GZC6	GZC7
	4	1200-1400	GZC			GZC4	GZC5	GZC6	GZC7
	5	1600-1800	GZC		GZC3	GZC4	GZC5	GZC6	
	6	2000-2200	GZC	GZC2	GZC3	GZC4	GZC5		
5 (Wellington)	1	0000-0200				ZLW4	SLW5	ZLW6	
	2	0400-0600				ZLW4	ZLW5	ZLW6	
	3	0800-1000				ZLW4	ZLW5	ZLW6	
	4	1200-1400				ZLW4	ZLW5	ZLW6	
	5	1600-1800				ZLW4	ZLW5	ZLW6	
	6	2000-2200				ZLW4	ZLW5	ZLW6	
7 (Sydney)	1	0000-0200	‡VIX	VIX2	VIX3	VIX4	VIX5	VIX6	VIX7
	2	0400-0600		VIX2	VIX3	VIX4	VIX5	VIX6	VIX7
	3	0800-1000	VIX	VIX2	VIX3	VIX4	VIX5	VIX6	
	4	1200-1400		VIX2	VIX3	VIX4	VIX5	VIX6	
	5	1600-1800		VIX2	VIX3	VIX4	VIX5	VIX6	
	6	2000-2200		VIX2	VIX3	VIX4	VIX5	VIX6	
8 (Singapore)	1	0000-0200	GYS			GYS4	GYS 5	GYS6	GYS7
	2	0400-0600	GYS			GYS4	GYS5	GYS6	GYS7
	3	0800-1000	GYS		GYS 3	GYS4	GYS 5	GYS6	GYS7
	4	1200-1400	GYS		GYS3	GYS4	GYS5	GYS6	
	5	1600-1800	GYS	GYS2	GYS3	GYS4	GYS5		
	6	2000-2200	GYS	GYS2	GYS3	GYS4	GYS5		

Area (1)	Line (2)	Time G.M.T. (3)	Frequencies (kc/s)						
			(4)	(5)	(6)	(7)	(8)	(9)	(10)
6 (Vancouver)	1	0000-0200	110.75	3,287	4,307	6,445.25		12,921	17,228
	2	0400-0600	110.75	3,287	4,307	6,445.25			
	3	0800-1000	110.75	3,287	4,307	6,445.25	8,614		
	4	1200-1400	110.75	3,287	4,307	6,445.25	8,614		
	5	1600-1800*	110.75	3,287	4,307	†6,445.25		12,921	17,228
	6	2000-2200	110.75	3,287	4,307	6,445.25		12,921	17,228
9 (Halifax CFH)	1	0000-0200	115.3		4,356.5	6,449.5	8,662	12,984	17,218.4
	2	0400-0600	115.3		4,356.5	6,449.5	8,662	12,984	17,218.4
	3	0800-1000	115.3		4,356.5	6,449.5	8,662	12,984	17,218.4
	4	1200-1400	115.3		4,356.5	6,449.5	8,662	12,984	17,218.4
	5	1600-1800	§115.3		4,356.5	6,449.5	8,662	12,984	17,218.4
	6	2000-2200	115.3		4,356.5	6,449.5	8,662	12,984	17,218.4

\* Closed for maintenance 1700-1800 G.M.T. on Tuesdays,

† Operating on reduced power on Sundays.

‡ Closed for maintenance 0001-0200 G.M.T. on Tuesdays and Thursdays.

§ Closed for maintenance 1200-1600 G.M.T. on Wednesdays.

**App. 9]****SCHEDULE B.—TRAFFIC FROM SHIPS—(see 11)**

Area	Area Station	Call Signs and Frequencies (kc/s) used by Area Stations for answering calls in the bands indicated. Hours of watchkeeping (G.M.T.)					
		Calling Band (kc/s) 4,177-4,187	Calling Band (kc/s) 6,265.5-6,280.5	Calling Band (kc/s) 8,354-8,374	Calling Band (kc/s) 12,531-12,561	Calling Band (kc/s) 16,708-16,748	Calling Band (kc/s) 22,220-22,270
1	Portishead Jan./Feb. 1964	GKH 4,274 Continuous	GKV 6,379.5 0000-0500 0800-1100 1600-2400	GKL 8,558 Continuous	GKG 12,835.5 0500-2200	GKS 17,112.8 0800-1800	GKI 22,449 0900-1600
2	Capetown	ZSJ2 4,283 2000-0400 1600-2000f	ZSJ3 6,386.5 2000-0400	ZSJ4 8,566 Continuous	ZSJ5 12,849 0400-2000	ZSJ6 17,132 0400- 2000	—
3	Mauritius	GX02 4,277 1800-0300	GX03 6,393.5 1500-0300	GX04 8,554 1200-0600	GX05 12,831 Continuous	GX06 17,108 0300-1800	GX07 22,533 0300-1500
	Bombay	—	—	VTF4 8,566 Continuous	VTF5 12,849 Continuous	VTF6 17,132 0230- 1430	—
5	Irirangi	ZL02 4,277 Continuous	ZL03 6,393.5 0600-1800	—	—	ZL06 17,108 1800-0600	—
	Awarua	—	—	ZLB4 8,554 Continuous	ZLB5 12,831 1800-0600	—	—
6	Vancouver	CKN2 4,277 Continuous	CKN3 6,393.5 Continuous	CKN4 8,554 0400- 1600	CKN5 12,831 1600-0400	CKN6 17,108 1600-0400	CKN7 22,5331
7	Sydney	—	VIS3 6,463.5 0900-1300	VIS4 8,662 Continuous	VIS5 12,952.5 Continuous	VIS6 17,160.8 2230-0900	—
8	Singapore	—	—	GYL4 8,554 Continuous	GYL5 12,831 Continuous	—	—
	Hong Kong	—	—	—	GZOS 12,849 Continuous	—	—
9	Halifax* (Camperdown)	VCS 4,293.5 0000-1000 1000-2400t	VCS 6,491.5 Continuous	VCS 8,710 Continuous	VCS 13,087.5 1000-0200	—	—

*{Example only}***SUPPLEMENTARY RECEIVING STATIONS****(See Section 11.)**

Station			Watchkeeping Particulars	
Name (1)	Call Sign (2)	Answers on (kc/s) (3)	Hours of Watch G.M.T. (4)	Band (kc/s) (5)
Malta . . . .	GYX3 GYX4 GYX5	May to September		6,265.5- 6,280.5 8,354 - 8,374 12,531 -12,561
		6,386.5 8,566 12,849	2000-0600 Continuous 0600-2000	
	GYX3 GYX4 GYX5	October to April		6,264.5- 6,280.5 8,354 - 8,374 12,531 -12,561
		6,386.5 8,566 12,849	1800-0600 Continuous 0600-1800	
Vizagapatam . .	VT04 VTO5	8,566 12,849	Continuous Continuous	8,354 - 8,374 12,531 -12,561
Darwin . .	VHM4 VHM5 VHM6	8,554 12,831 17,108	1000-2200 Continuous 2200-1000	8,354 - 8,374 12,531 -12,561 16,708 -16,748

